California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Alan C. Lloyd, Ph.D.
Agency Secretary

Arnold Schwarzenegger
Governor

Sacramento Main Office
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

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ITEMS TO BE INCLUDED IN A
FEASIBILITY STUDY/REMEDIAL OPTIONS EVALUATION REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all feasibility studies/remedial option evaluation reports submitted to the Board. Reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the state of California.

I. Purpose of Feasibility Study/Remedial Options Evaluation

II. Background
- A. Description of Facility
- B. Site History
  1. Years of Operation
  2. Chemical Use
  3. Chemical Releases (Potential and Documented)
- C. Geology
  1. Regional
  2. Local, soil type, lithology, lateral extent of lithologic units
- D. Hydrogeology
  1. Aquifers, Aquitards, Perched Aquifers
  2. Groundwater flow rates, directions, recharge, discharge
  3. Groundwater Use
  4. Extraction and injection wells affect on groundwater flow
- E. Surface Water
  1. Losing or gaining streams, ponds etc.
  2. Hydraulic connection with aquifers
- F. Local Land Use
- G. Previous Investigation and Remedial Actions

II. Nature and Extent of Contamination
- A. Contaminants in Soils
  1. Types and Concentrations
  2. Lateral and Vertical Extent

B. Pollutants in Groundwater
   1. Types and Concentrations
   2. Lateral and Vertical Extent (including Perched Zones)

III. Contaminant Fate and Transport
A. Contaminant Properties
   1. Mobility
   2. Toxicity
   3. Half-life
   4. Chemical and biological degradation
B. Contaminant Transport based on Soil and Aquifer Properties

IV. Remedial Action Objectives

V. Description of Remedial Action Alternatives – at a minimum, 3 alternatives must be considered

A. Alternative that meets background levels
B. Alternative that meets water quality objectives
C. Alternative that meets levels between background and water quality objectives

VI. Evaluation of Remedial Action Alternatives
A. Overall Protectiveness of Human Health and the Environment
B. Compliance with Laws and Regulations
C. Long Term Effectiveness and Permanence
D. Reduction of Toxicity, Mobility, and Volume
E. Short Term Effectiveness
F. Implementability
G. Cost
F. State and Community Acceptance

VII. Potential Impacts of Remedial Actions

VIII. Estimated Project Schedule for Each Alternative

IX. Preferred Alternative